

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of synthesizing a signal by a computer system comprising the acts of:

a) determining a required pitch bell location in the domain of the signal to be synthesized,

b) mapping the required pitch bell location onto an original signal to provide a first pitch bell location,

c) randomly shifting the first pitch bell location to provide a second pitch bell location,

d) windowing the original signal on the second pitch bell location to provide a pitch bell,

e) placing the pitch bell at the required pitch bell location in the domain of the signal to be synthesized to form the signal, and

f) outputting the signal as a speech signal from a speaker.

2. (Currently Amended) The method of claim 1, wherein the ~~determination of act of determining the~~ required pitch bell ~~locations location~~ is performed by dividing the ~~a~~ required length of the signal to be synthesized into time intervals, each of the time intervals having the ~~a~~ length of a pitch.

3. (Currently Amended) The method of ~~claim 1~~ claim 2, wherein the act of randomly shifting the first pitch bell location is performed by randomly shifting the first pitch bell location within an interval of ~~+/- the pitch~~ of the pitch of the signal to be synthesized.

4. (Previously Presented) The method of claim 1, wherein the act of randomly shifting the first pitch bell location i to provide the second pitch bell location i' is performed in accordance with the following equation:

$$i' = i * (Rxp),$$

where R is a random number between - 1 and + 1 and p is the pitch.

5. (Previously Presented) The method of claim 1, wherein the windowing is performed by a sine-window.

6. (Previously Presented) The method of claim 1, wherein the windowing is performed by the following sine-window function:

$$w[n] = \sin\left(\frac{\pi \cdot (n + 0.5)}{m}\right), \quad 0 \leq n < m$$

where m is a length of the window and n is a running index.

7. (Previously Presented) The method of claim 1, wherein the original signal does not have a fundamental frequency, and the original signal comprises unvoiced speech or music.

Claim 8 (Canceled)

9. (Currently Amended) A computer system for synthesizing a signal, the computer system comprising a processor configured for:

determining required pitch bell locations within the ~~signal~~
signal to be synthesized,

mapping the required pitch bell locations onto an original signal to provide first pitch bell locations (i),

randomizing the first pitch bell locations to provide second pitch bell locations (i'),

windowing the original signal on the second pitch bell locations to provide pitch bells, and

synthesizing the signal by performing an overlap and add
operation with respect to the pitch bells ~~in order to synthesize~~
~~the signal~~.

Claim 10 (Canceled)

11. (Currently Amended) The computer system of claim 9,
wherein the ~~means for determining processor~~ determines the required
pitch bell locations by dividing ~~the~~ a required length of the

signal to be synthesized into time intervals, each of the time intervals having ~~the~~ a length of a pitch.

12. (Currently Amended) The computer system of ~~claim 9~~ claim 11, wherein the ~~means for randomizing processor~~ randomly shifts the first pitch bell location within an interval of ~~+/- the pitch of~~ the pitch.

13. (Currently Amended) The computer system of claim 9, wherein the ~~means for randomizing processor~~ randomly shifts the first pitch bell location i to provide the second pitch bell location i' in accordance with the following equation:

$$i' = i * (Rxp),$$

where R is a random number between -1 and $+1$ and p is the pitch.

14. (Previously Presented) The computer system of claim 9, wherein the windowing is performed by a sine-window.

15. (Currently Amended) The computer system of claim 9, wherein
the ~~means for windowing processor~~ performs windowing by the
following sine-window function:

$$w[n] = \sin\left(\frac{\pi \cdot (n + 0.5)}{m}\right), \quad 0 \leq n < m$$

where m is a length of the window and n is a running index.

16. (Previously Presented) The computer system of claim 9,
wherein the original signal does not have a fundamental frequency,
and the original signal comprises unvoiced speech or music.

17. (Currently Amended) A device for synthesizing a signal
comprising a processor configured to perform the acts of:

determining required pitch bell locations within the signal to
be synthesized;

mapping the required pitch bell locations onto an original
signal to provide first pitch bell locations;

randomizing the first pitch bell locations to provide second

pitch bell locations;

windowing the original signal on the second pitch bell
locations to provide pitch bells; and

synthesizing the signal by performing an overlap and add
operation with respect to the pitch bells ~~in order to synthesize~~
~~the signal.~~

18. (Currently Amended) The device of claim 17, wherein the
~~determination of processor determines the~~ required pitch bell
locations ~~is performed by dividing the a~~ required length of the
signal to be synthesized into time intervals, each of the time
intervals having ~~the a~~ length of a pitch.

19. (Currently Amended) The device of ~~claim 17~~ claim 18,
wherein the ~~act of randomly shifting processor randomly shifts the~~
first pitch bell location ~~is performed by randomly shifting the~~
first pitch bell location within an interval of ~~+/- the pitch of~~
the pitch.

20. (Currently Amended) The device of claim 17, wherein the ~~act of randomly shifting processor randomly shifts~~ the first pitch bell location i to provide the second pitch bell location i' ~~is performed in~~ accordance with the following equation:

$$i' = i * (Rxp),$$

where R is a random number between -1 and $+1$ and p is the pitch.

21. (Previously Presented) The device of claim 17, wherein the windowing is performed by a sine-window.

22. (Previously Presented) The device of claim 17, wherein the windowing is performed by the following sine-window function:

$$w[n] = \sin\left(\frac{\pi \cdot (n + 0.5)}{m}\right), \quad 0 \leq n < m$$

where m is a length of the window and n is a running index.